FLORENCE COPPER

FLORENCE COPPER INC.
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January 07, 2019

ADEQ Water Quality Compliance Section
Mail Code 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007

Attention: Mr. Tracy Bunch

Subject: Weekly Monitoring Report for Week Ending 12/28/2019
Florence Copper, Production Test Facility
Aquifer Protection Permit No. 106360, LTF 61845

Dear Mr. Bunch:

Florence Copper is submitting this report in accordance with Table 4.1-8 and Section 2.7.4.4 of the Production Test Facility Temporary Aquifer Protection Permit (APP) No. 106360.

In accordance with Table 4.1-8 of the APP, this report includes In-Situ Best Available Demonstrated Control Technology (BADCT) compliance monitoring for the PTF that is required to be reported on a weekly basis including:

- Recovered volume to injection volume;
- Inward hydraulic gradient; and
- Maximum injection pressure.

A map showing the location of the PTF injection, recovery, and observation wells is included as Figure 1.

Recovered Volume to Injection Volume

A summary of the injected and recovered volumes for the week of 12/22/2019 to 12/28/2019 is included in Table 1. The total injected and recovered volumes for the PTF as a daily total are also presented on Figure 2.

During the reporting period no exceedance of the alert level was measured for recovered volume to injected volume. The alert level is the recovered volume shall exceed the injected volume.

Inward Hydraulic Gradient

Table 2 includes a summary of water levels in the recovery and observation well pairs. Hydrographs showing the water level elevation for each recovery well and observation well pair are included in Figure 3.

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During the reporting period, there was no exceedance of the alert level for the inward hydraulic. The alert level for the inward hydraulic gradient is that the water level elevation in the paired observation well must be a minimum of 1 foot higher than the paired recovery well.

Injection Pressure

A summary of the injection pressures during the reporting period is included as Table 3. Pressure at injection well I-03 increased briefly on December 25 while adjustments were being made to the raffinate tank.

During the reporting period no alert levels were exceeded for injection pressure, the injection pressure limit for the injection wells is limited by the fracture gradient of 0.65 pounds per square inch (psi) per foot. For the PTF injection wells this pressure limit equates to 104 psi.

Please contact me at 520-374-3984 if you require any additional information.

Sincerely,
Florence Copper Inc.

Daniel Valgardson
for Richard Tremblay

Richard Tremblay
Vice President Operations

Attachments:
Tables and Figures

cc: Marybeth Greenslade, ADEQ
Nancy Rumrill, United States Environmental Protection Agency

TABLES

Table 1. Injected and recovered volumes (gallons) for the week 12/22/2019 – 12/28/2019

Date	Daily Injection Flow	Daily Recovery Flow	Ratio PLS/Raff	% Recovery
12/22/2019	216700	239300	1.10	110
12/23/2019	216300	241700	1.12	112
12/24/2019	219900	247300	1.12	112
12/25/2019	219900	251400	1.14	114
12/26/2019	224160	255800	1.14	114
12/27/2019	232272	260900	1.12	112
12/28/2019	232272	260400	1.12	112
Weekly Average	223072	250971	1.13	113

Table 2. Average daily water levels in the recovery and observation well pairs (amsl)

Well Pairs Avg Elev	12/22/19	12/23/19	12/24/19	12/25/19	12/26/19	12/27/19	12/28/19
R-01	1243.17	1242.20	1241.09	1241.06	1240.47	1240.55	1241.79
O-01	1248.27	1247.55	1247.10	1246.95	1247.05	1248.71	1249.92
O-07	1248.09	1247.42	1247.14	1247.03	1247.12	1248.73	1249.96
R-02	1220.95	1219.77	1219.30	1218.28	1218.11	1220.43	1221.48
O-01	1248.27	1247.55	1247.10	1246.95	1247.05	1248.71	1249.92
O-02	1247.47	1246.65	1246.37	1246.18	1246.22	1248.04	1249.23
R-03	1195.12	1190.12	1186.69	1184.96	1181.38	1189.23	1190.14
O-02	1247.47	1246.65	1246.37	1246.18	1246.22	1248.04	1249.23
O-03	1245.48	1244.96	1245.68	1246.12	1247.06	1250.15	1251.56
R-04	1165.81	1163.29	1162.09	1160.74	1158.71	1156.77	1156.04
O-03	1245.48	1244.96	1245.68	1246.12	1247.06	1250.15	1251.56
R-05	1209.91	1208.96	1208.90	1208.68	1209.37	1210.86	1211.78
O-04	1247.98	1247.24	1247.21	1246.97	1247.27	1249.37	1250.60
R-06	1205.11	1203.30	1200.82	1194.56	1194.98	1198.55	1200.46
O-04	1247.98	1247.24	1247.21	1246.97	1247.27	1249.37	1250.60
O-05	1248.30	1247.54	1247.38	1247.16	1247.37	1249.25	1250.46
R-07	1246.49	1245.79	1245.52	1245.34	1245.46	1247.18	1248.38
O-05	1248.30	1247.54	1247.38	1247.16	1247.37	1249.25	1250.46
O-06	1248.09	1247.30	1247.08	1246.99	1247.10	1248.78	1250.01
R-08	1241.05	1240.49	1240.35	1240.50	1239.71	1238.40	1239.84
O-06	1248.09	1247.30	1247.08	1246.99	1247.10	1248.78	1250.01
O-07	1248.09	1247.42	1247.14	1247.03	1247.12	1248.73	1249.96

Table 3. Injection well pressures (psi)

Date	I-01			I-02			I-03			I-04		
	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX
12/22/2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/23/2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/24/2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/25/2019	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	48.55	0.00	0.00	0.00
12/26/2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/27/2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/28/2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Spike in P at I-03 on December 25 was related to raffinate tank adjustment.

FIGURES

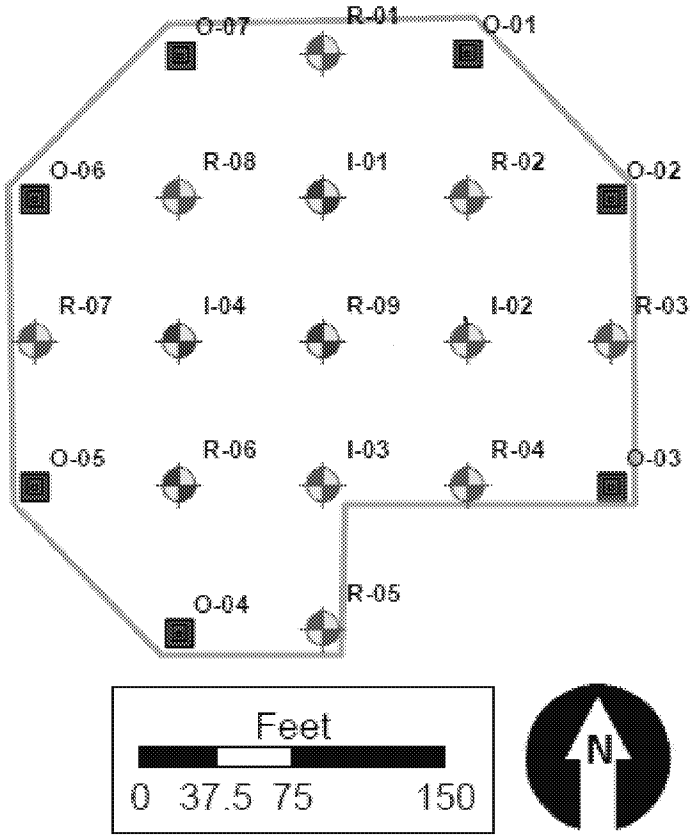

Figure 1. PTF injection, recovery, and observation well locations

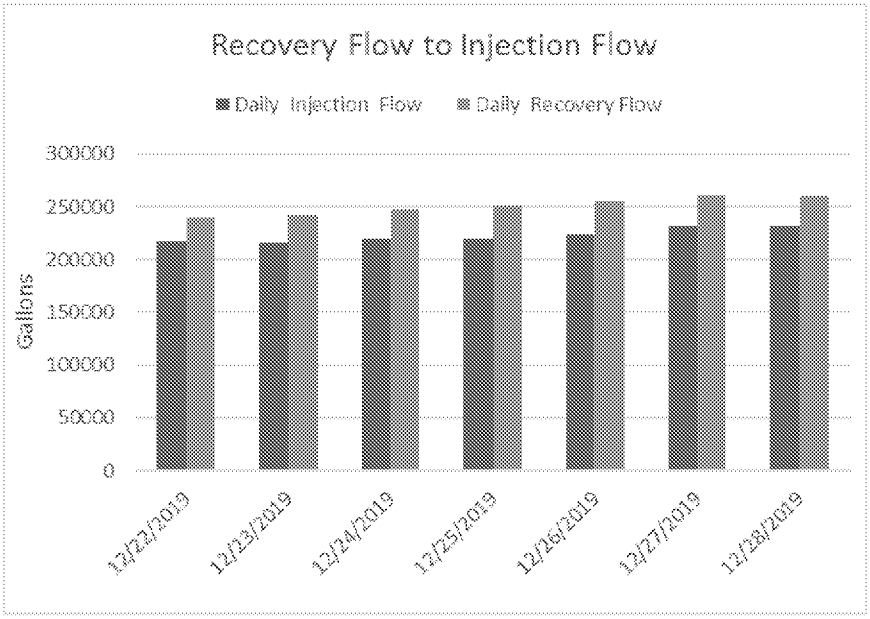

Figure 2. Recovered volume to injected volume

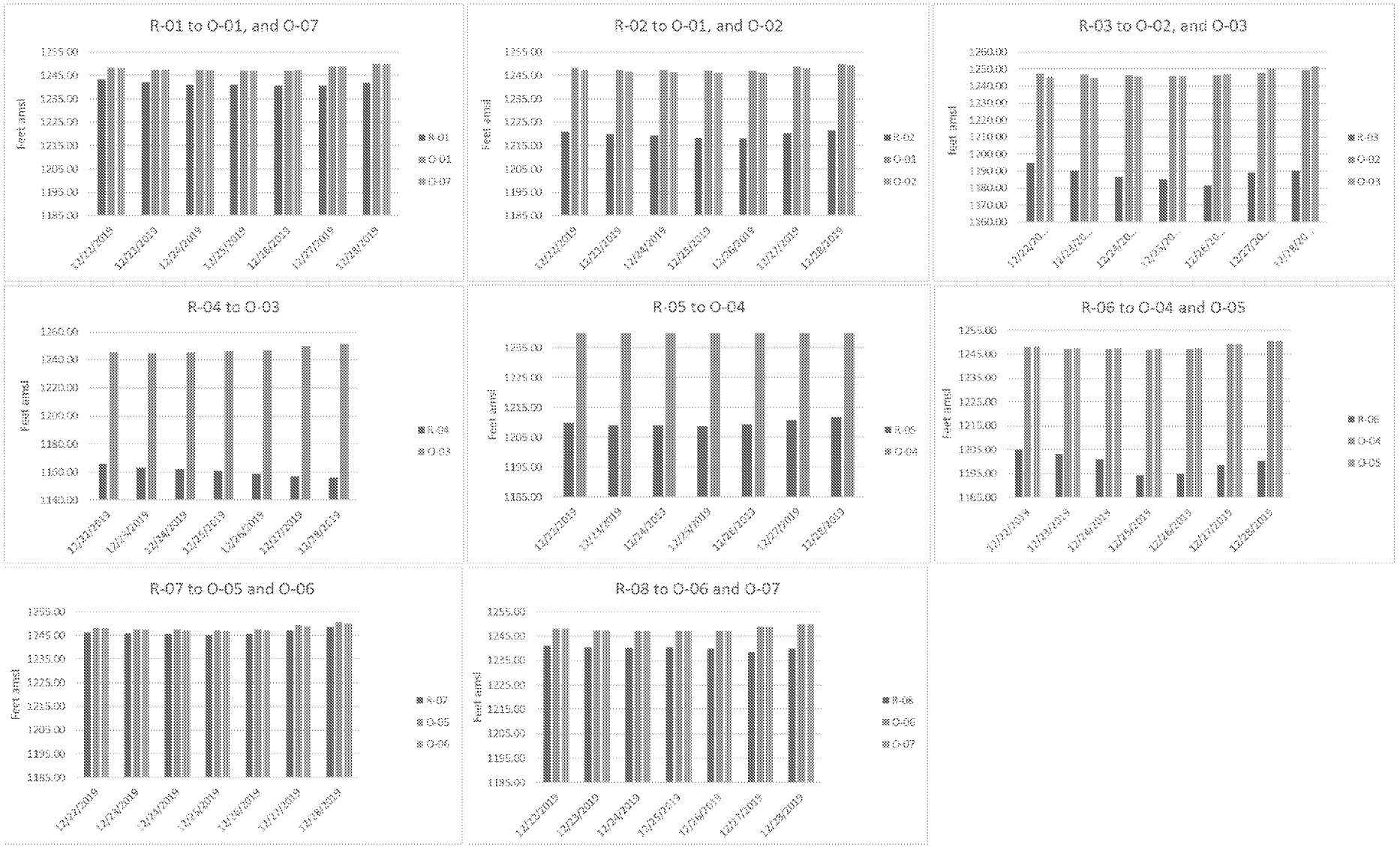

Figure 3. Recovery and observation well pairs.